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CHERRY PRE-COOLING POSSIBILITIES

Department of Agriculture
Office of the
Dairy and Cold Storage Commissioner,
Ottawa, Ont., August 16th, 1915.

During the season of 1914 fruit shippers in the Niagara district were facing a large cherry crop and rather a poor market. A few shipments of sour cherries had been made, in previous years, as far west as Winnipeg with indifferent results; sometimes the fruit arrived in a fair condition, but more commonly it showed a great deal of waste. With this experience in their minds shippers in the Grimsby district were reluctant to attempt further western shipment of such a perishable fruit even with pre-cooling facilities available, and especially in the face of a large production and low prices in the east.

In order to demonstrate the possibilities of pre-cooling and shipping sour cherries to the Northwest, it was necessary for the Department to purchase a carload of Montmorency cherries and make a pre-cooled shipment to Winnipeg. The detailed results of this experimental shipment may be found in Vol. I, page 620 of the *Agricultural Gazette*. It may be said here that the excellent condition of the pre-cooled cherries upon arrival in Winnipeg sold them for 60 cents per 6-quart basket, whereas ordinary shipments were selling in the same market for from 38 to 42 cents.

As a result of this demonstration of pre-cooling sour cherries for long distance shipments, private shipments have been made this year to the extent of 168,057 pounds, taking with them 46,808 pounds of other tender fruits coming on at the cherry season.

While the experimental shipment in 1914 showed clearly what might be done by pre-cooling and shipping the Montmorency cherry to the Northwest, there were still some misgivings about the Early Richmond, which is reputed to have poorer carrying qualities than the Montmorency. It was decided therefore to make a test shipment with this variety, similar to that made with the Montmorency in 1914. The Department purchased half a carload, the other half being made up by the Grimsby Fruit Growers, Ltd., and the Winona Fruit Growers, Ltd.

One phase of the test related to packages best adapted to sour cherries. Those used were the British Columbia 4-basket crate (warehouse pack), and the 6-quart basket (warehouse pack) and the 6-quart basket, orchard pack. In order to teach green packers how to pack the British Columbia 4-basket crate it was necessary to use fruit picked on two days, July 2nd and 3rd. The fruit was cooled over Sunday July 4th, loaded in the refrigerator car on the afternoon of July 5th, and left Grimsby on the morning of July 6th. The bunkers received but 4 tons of ice in transit. The car arrived in Winnipeg during the night of Sunday, July 11th, and was not opened for distribution until Monday, July 12th. It will be seen that the Early Richmond cherries were given a transportation test of ten days from time of picking.

Mr. J. M. Creelman, scientific assistant in transportation work, was in Winnipeg to make an accurate inspection, and he reported the shipment to be in prime market condition upon arrival. The fruit sold readily at 60 cents for the 6-quart basket and $1.50 for the 4-basket crates. (The British Columbia 4-basket crate holds about 20 pounds of cherries as against about 8 pounds in a 6-quart basket). No difference was found between the two pickings on different days. The fruit was in as good a market condition as were the Montmorencies in 1914.

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There is a great doubt among fruit growers as to the "holding quality" of pre-cooled fruit after removal from the refrigerator car. Especially has the inquiry come to us as to whether pre-cooled cherries would stand re-shipment by express after the refrigerator car had been opened at the larger distributing points in the prairie provinces. To test this out in a practical manner Mr. Creelman re-shipped by express from Winnipeg to Brandon a half-dozen 6-quart baskets and four 4-basket crates, and inspected them in Brandon Tuesday, July 13th. The fruit was found to arrive in splendid market condition and sold in Brandon for 75 cents per 6-quart basket and $1.25 per 4-basket crate. A minute inspection after re-shipment showed considerable more actual waste in the fruit than there was upon withdrawal from the refrigerator car in Winnipeg, but this was not great enough to detract much from the market condition.

In emphasizing the importance of the length of time elapsing in this test between the picking and the distribution of the cherries (ten days), it must be borne in mind that the actual time of the car between Grimsby, Ont., and Winnipeg, Man., was only five and one-half days, the rest of the time being required for re-packing, pre-cooling and holding over two Sundays.

The test shows that Ontario sour cherries may be successfully marketed by refrigerator freight in Edmonton, Alberta, since transportation companies have promised a nine-day despatch to that city. Furthermore, the Brandon re-shipment test shows the possibility of distributing Ontario Early Richmond cherries to points in Alberta as remote as Athabaska Landing.

While such distribution is a physical possibility, we may also look upon it as an economic possibility. The selling price of Montmorency cherries was 27 to 30 cents per 6-quart basket f.o.b. Ontario points. Transportation costs to Edmonton are as follows: Pre-cooling and loading, 1 cent; freight, 21 cents; ice, 2 cents. Thus cherries could be laid down in Edmonton for 54 cents per 6-quart basket.

FREIGHT SHIPMENTS OF SWEET CHERRIES.

Included in the car with the Montmorency shipment were the following packages filled with Black Tartarian cherries:—

2 24 ⅘-quart Hallock strawberry crates,
2 24 full-pint Hallock strawberry crates and
2 4-basket crates.

This trial shipment of pre-cooled sweet cherries by refrigerated freight proved a complete success and a confirmation of our storage tests at Grimsby in 1914.

The cherries arrived in excellent condition and sold well. The 24 ⅘-quart Hallock crates sold for $4 each and the 24 full-pint Hallock crates sold for $3.50 each, with no sales record for the 4-basket crates as they were checked out wth the sour cherries. Splendid prices are realized in prairie markets for sweet cherries and by pre-cooling and shipping in refrigerator cars by freight, transportation costs are more than cut in half.

The carload express rate from the Niagara Peninsula to Winnipeg is $2 per 100 pounds, while the freight rate is 66 cents, making a saving of $238 on one carload.

CONCLUSIONS.

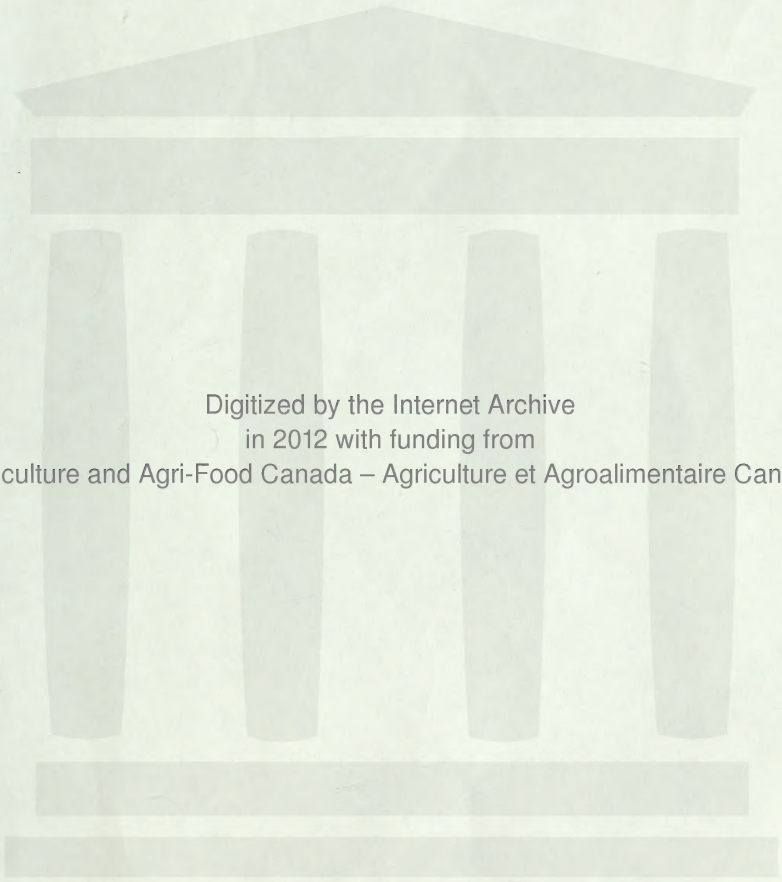
Two outstanding features are to be noticed as a direct result of this work in the pre-cooling of cherries; first, the relieving of eastern shippers of a surplus of sour cherries; and second, the reduction of the cost of sour cherries in prime condition to the consumers in Winnipeg and other western points. By the increased western sales, shippers in the Grimsby district found difficulty in securing enough sour cher-

ries to fill local orders, whereas under old conditions the reverse was the case. By the reduced cost of transportation, it was this season possible to place in the hands of the Winnipeg housekeeper, Montmorency cherries of the best quality of any that arrived in that city at 50 cents per 6-quart basket with satisfactory returns to the grower.

Aside from strengthening local markets, pre-cooling is increasing the western demand for sour cherries, by reducing the cost to the consumer. The cost to the prairie consumer is being reduced by having shipments arrive without waste. The demand for first quality fruit at a moderate price is so great that in Winnipeg one large retail store, placing a price of 50 cents per package, sold 2,333 baskets in thirty minutes. During the past season, the larger part of the pre-cooled shipments reached only the Winnipeg market. By reaching out to other wholesale centres in Manitoba and Saskatchewan with pre-cooled cherry shipments, we have very promising possibilities of marketing our rapidly increasing production of sour cherries, with very satisfactory returns to the grower.

J. A. RUDDICK,
Commissioner.

EDWIN SMITH,
In Charge Pre-cooling and Fruit Transportation Investigations.



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